

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference H0498.70198	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. PCT/US2004/009376	International filing date (day/month/year) 26/03/2004	(Earliest) Priority Date (day/month/year) 26/03/2003
Applicant PRESIDENT AND FELLOWS OF HARVARD COLLEGE		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☒ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

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Box No. 1 Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing
 - ☒ contained in the international application as filed
 - ☒ filed together with the international application in computer readable form
 - ☒ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G01N33/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SU JING ET AL: "Using mass spectrometry to characterize self-assembled monolayers presenting peptides, proteins, and carbohydrates." ANGEWANDTE CHEMIE (INTERNATIONAL ED. IN ENGLISH) 16 DEC 2002, vol. 41, no. 24, 16 December 2002 (2002-12-16), pages 4715-4718, XP002313539 ISSN: 0570-0833 the whole document <div style="text-align: center; margin-top: 20px;">----- -/--</div>	1-33

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

26 January 2005

Date of mailing of the international search report

07/02/2005 ✓

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Internat Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NEDELKOV DOBRIN ET AL: "Design of buffer exchange surfaces and sensor chips for biosensor chip mass spectrometry" PROTEOMICS, vol. 2, no. 4, April 2002 (2002-04), pages 441-446, XP002313540 ISSN: 1615-9853 the whole document	1-33
X	WO 02/06834 A (AULT RICKE DANA ; KASSNER PAUL D (US); POINTILLISTE INC (US)) 24 January 2002 (2002-01-24) the whole document	1-33
P,X	WO 2004/005918 A (MRKSICH MILAN ; SU JING (US); UNIV CHICAGO (US)) 15 January 2004 (2004-01-15) the whole document	1-33
P,X	FERNANDEZ F M ET AL: "Peptide sequencing using a patchwork approach and surface-induced dissociation in sector-TOF and dual quadrupole mass spectrometers" JOURNAL OF THE AMERICAN SOCIETY FOR MASS SPECTROMETRY, ELSEVIER SCIENCE INC., NEW YORK, NY, US, vol. 14, no. 12, December 2003 (2003-12), pages 1387-1401, XP004476947 ISSN: 1044-0305 the whole document	1-33
A	TEMPLIN M F ET AL: "PROTEIN MICROARRAY TECHNOLOGY" DRUG DISCOVERY TODAY, ELSEVIER SCIENCE LTD, GB, vol. 7, no. 15, 1 August 2002 (2002-08-01), pages 815-822, XP001152984 ISSN: 1359-6446 the whole document	1-33

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Information on patent family members

International Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0206834	A	24-01-2002	AU 7896801 A	30-01-2002
			CA 2415328 A1	24-01-2002
			EP 1301632 A2	16-04-2003
			JP 2004504607 T	12-02-2004
			WO 0206834 A2	24-01-2002
			US 2002137053 A1	26-09-2002
WO 2004005918	A	15-01-2004	WO 2004005918 A2	15-01-2004